

(d) zone in the presence of the first reaction product and copolymerizing at least a portion of the acrylamido monomer in the stream with the first reaction product to form a second reaction product comprising vinyl acetate/acrylamido copolymer;

(e) saponifying at least a portion of the vinyl acetate/acrylamido copolymer produced in the second reaction zone to form a vinyl alcohol/acrylamido copolymer.

22. [New] The process of Claim 21, wherein the reaction mixture comprises up to 0.2 wt. % of acetaldehyde based on the total weight of the vinyl acetate monomer and acetaldehyde.

23. [New] The process of Claim 22, wherein the reaction mixture comprises a solvent and a free radical polymerization initiator.

24. [New] The process of Claim 23, wherein the reaction mixture comprises about 1.0 wt. % to about 20.0 wt. % acrylamido monomer based on the total weight of the vinyl acetate monomer and the and the acrylamido monomer.

25. [New] The process of Claim 24, wherein the reaction mixture comprises about 4.0 wt. % to about 15.0 wt. % acrylamido monomer based on the total weight of the vinyl acetate monomer.

26. [New] The process of Claim 25, wherein the average residence time of the reaction mixture components in the first reaction zone is about 30 to about 120 minutes.

27. [New] The process of Claim 26, wherein the average residence time of the first reaction product in the second reaction zone is about 45 to about 70 minutes.

28. [New] The process of Claim 27, wherein the temperature in the first and second reaction zones is about 55° C to about 85° C.

29. [New] The process of Claim 27, wherein the average pressure in the first and second reaction zones is about 1 psi to about 30 psi.

30. [New] The process of claim 26 wherein the vinyl alcohol/acrylamido copolymer has a degree of hydrolysis of about 70% to about 99% and a viscosity of about 3 cps to about 30 cps and comprises about 1 mol % to about 8 mol % of polymerized acrylamido monomer, about 1 to about 20 mol % of polymerized vinyl acetate monomer, and about 75 mol % to about 98 mol % of polymerized vinyl alcohol.

31. [New, Rewritten prior Claim 20] A process for producing a vinyl acetate/acrylamido copolymer comprising:

(a) supplying a reaction mixture comprising vinyl acetate monomer and a acrylamido monomer to a first reaction zone wherein the vinyl acetate monomer and the

acrylamido monomer are at least partially copolymerized to form a first reaction product comprising vinyl acetate/acrylamido copolymer;

(b) transferring the first reaction product to a second reaction zone; and

(c) supplying a stream comprising acrylamido monomer to the second reaction zone in the presence of the first reaction product and copolymerizing at least a portion of the acrylamido monomer in the stream with the first reaction product to form a second reaction product comprising vinyl acetate/acrylamido copolymer.

32. [New] The process of Claim 31, wherein the reaction mixture comprises up to 0.2 wt. % of acetaldehyde based on the total weight of the vinyl acetate monomer and acetaldehyde.

33. [New] The process of Claim 32, wherein the reaction mixture comprises a solvent and a free radical polymerization initiator.

34. [New] The process of Claim 33, wherein the reaction mixture comprises about 1.0 wt.% to about 20.0 wt. % acrylamido monomer based on the total weight of the vinyl acetate monomer and the acrylamido monomer.

35. [New] The process of Claim 34, wherein the reaction mixture comprises about 4.0 wt. % to about 15.0 wt. % acrylamido monomer based on the total weight of the vinyl acetate monomer.

36. [New] The process of Claim 35, wherein the average residence time of the reaction mixture components in the first reaction zone is about 30 to about 120 minutes.

37. [New] The process of Claim 36, wherein the average residence time of the first reaction product in the second reaction zone is about 45 to about 70 minutes.

38. [New] The process of Claim 37, wherein the temperature in the first and second reaction zones is about 55° C to about 85° C.

39. [New] The process of Claim 38, wherein the average pressure in the first and second reaction zones is about 1 psi to about 30 psi.